

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method of manufacturing a holder-mounted optical element, comprising:

disposing a cylindrical holder material in a press forming die, the cylindrical holder material having a thin deformable deformed portion; in a press forming die,

providing an initial volume of optical element material and a surplus volume of the optical material inside the cylindrical holder material;

and heating the cylindrical holder material, and the initial volume of the optical element material, and the surplus volume of the optical material, to their respective softening temperatures;

press forming the cylindrical holder material, the initial volume of the optical element material and the surplus volume of the optical material;

the press forming configured to form forming a cylindrical holder from the cylindrical holder material, and configured to form and an optical element from the optical element material; by press forming the holder material and the optical element material that have been heated to their respective softening temperatures; and

the press forming configured to integrate integrating the optical element inside the cylindrical holder holder by applying a pressing force to optical material to cause the optical material to expand outwardly and deforming the deformed deform the deformable portion; and

wherein the deformable portion is configured to receive the surplus volume of the optical material so that the optical element contains a volume of material corresponding to the initial volume of the optical material.

~~of the holder towards the outside thereof by a pressing force applied by the optical element~~

2. (Original) The method of manufacturing a holder-mounted optical element according to Claim 1,

wherein reference surfaces for installation of the holder-mounted optical element in an optical axis direction and a radial direction are formed as a holder outer shape by press formation of the holder material.

3. (Currently Amended) The method of manufacturing a holder-mounted optical element according to Claim 1,

wherein the a-surplus volume of the optical material is previously added in a precision manner to the initial a-volume of the optical material required for formation of the optical element ~~in the optical element material, thereby deforming the deformed portion.~~

4. (Currently Amended) The method of manufacturing a holder-mounted optical element according to Claim 1,

wherein a side portion of the holder material is made thin and is deformable ~~serves as the deformed portion~~, and an inside portion of the deformable deformed portion is deformed outwardly pressed by the optical element material under pressure.

5. (Currently Amended) The method of manufacturing a holder-mounted optical element according to Claim 1,

wherein a thin collar portion is formed on an inner circumferential side of the holder and serves as the deformable ~~deformed~~ portion, and a portion near an inside tip portion of the deformable ~~deformed~~ portion is pressed by the optical element material.